Supplementary Materials for

Cheng, McCarthy, Wang, Palmeri & Little (2017)

Description of Supplementary Materials

Posterior Parameter Estimates.

Figures S1-S4 show posterior parameter estimates for the mixed serial parallel-model.

Figures S5 shows posterior parameter estimates for the serial self-terminating model for subject UA.

Figures S6-S7 show posterior parameter estimates for the two subjects (UA3, IA5) best fit by the free stimulus drift model.

Figure S8 shows the category space as reference for the remaining plots.

Posterior Predictive Plots. For each participant, we provide a series of plots showing the posterior predictions from the best fitting model. These plots show the observed response time distributions for category A responses (positive RTs) and category B responses (negative RTs). The layout of this figure corresponds to the category space shown in Figure S1, where each subplot represents the predictions for one item (e.g., the upper left subplot shows the predictions for item x_0y_2).

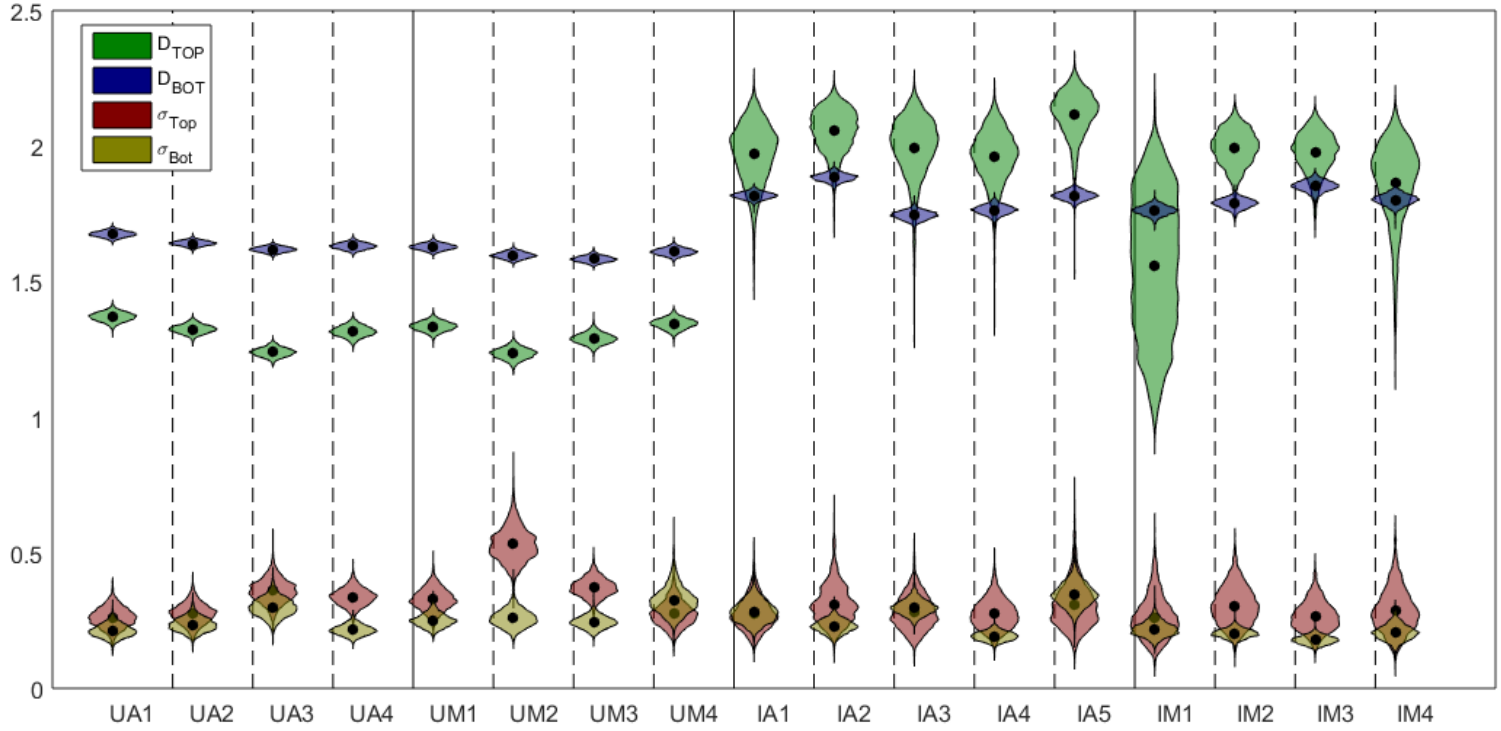


Figure S1. Posterior densities for decision bounds and perceptual variance parameters.

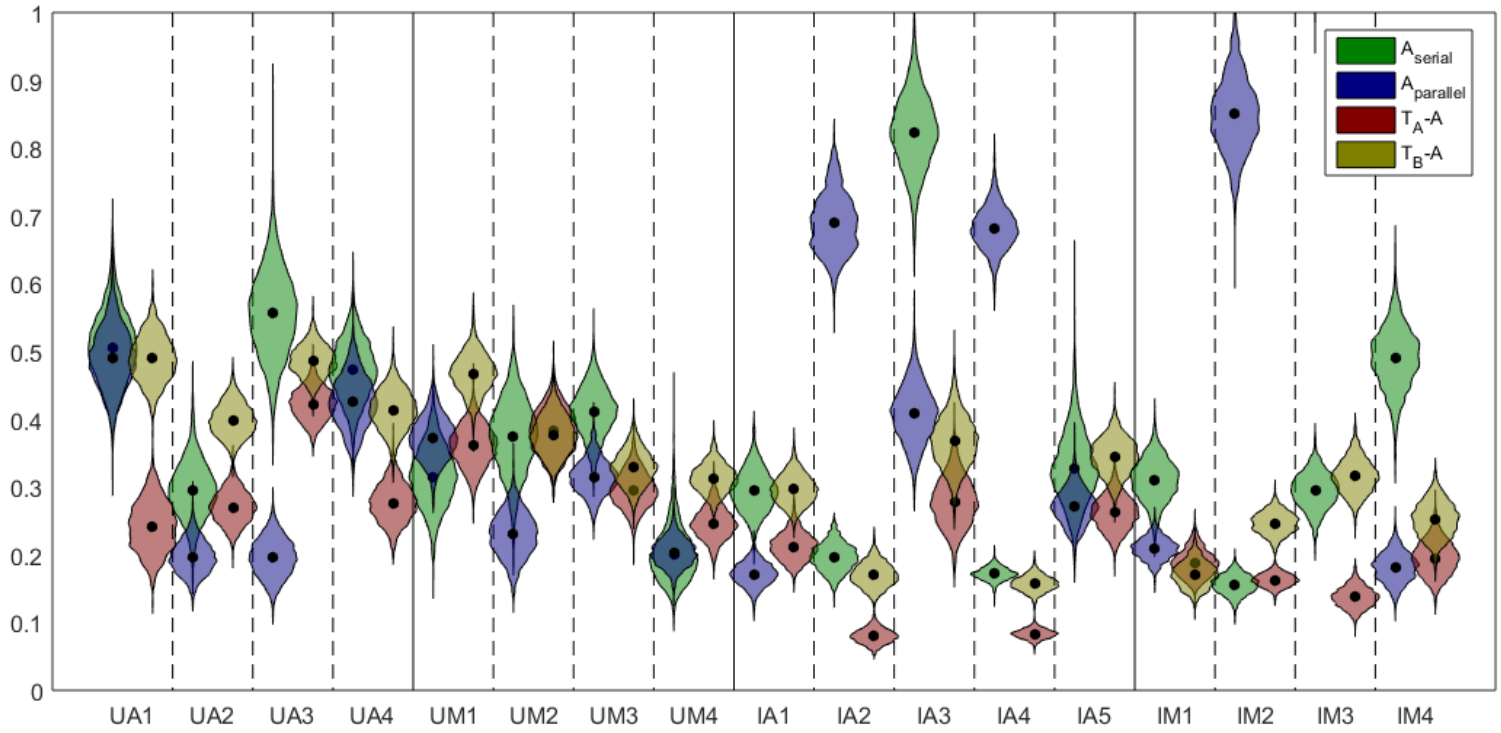


Figure S2. Posterior densities for starting points and decision thresholds from the serial and parallel components of the Mixed Serial-Parallel model.

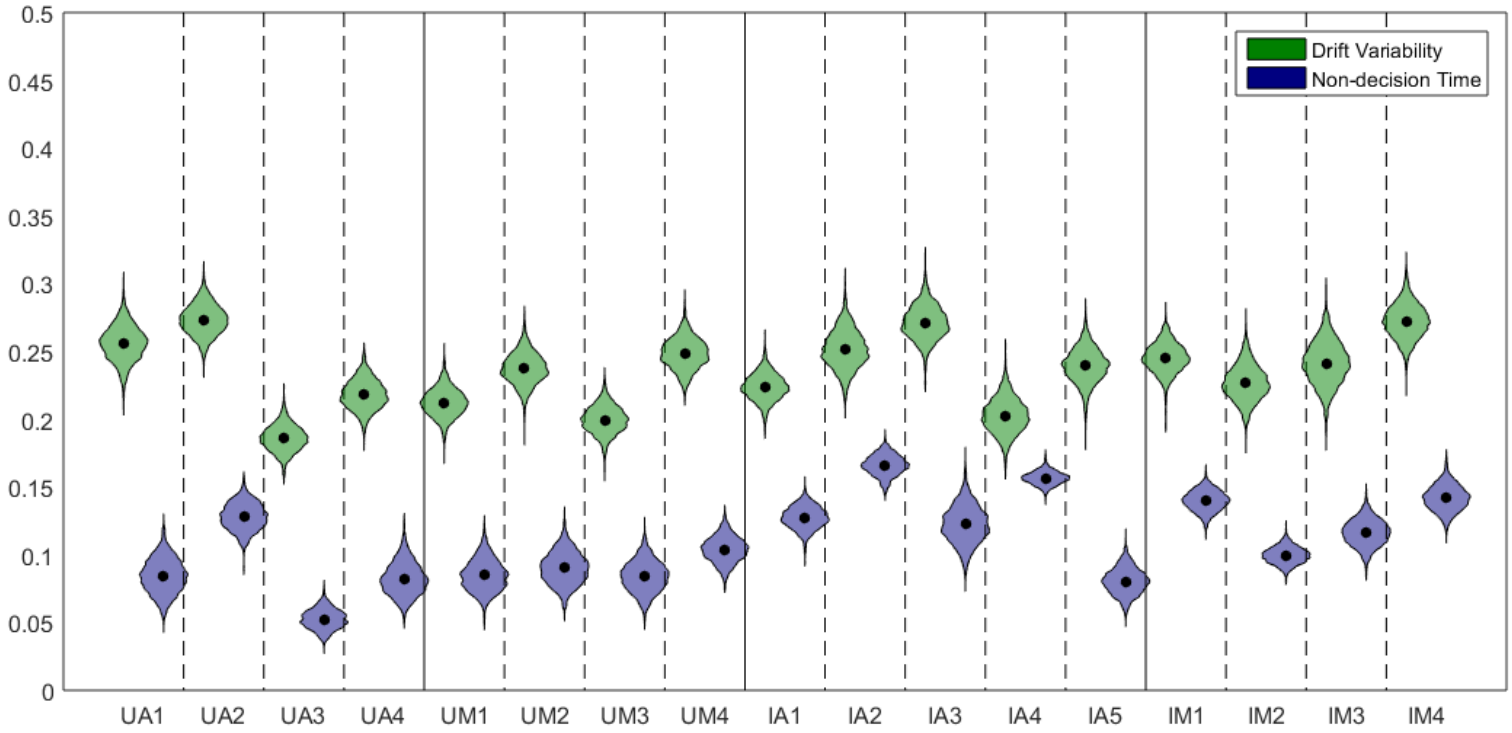


Figure S3. Posterior densities for the drift variability and non-decision time parameters for the mixed serial-parallel model

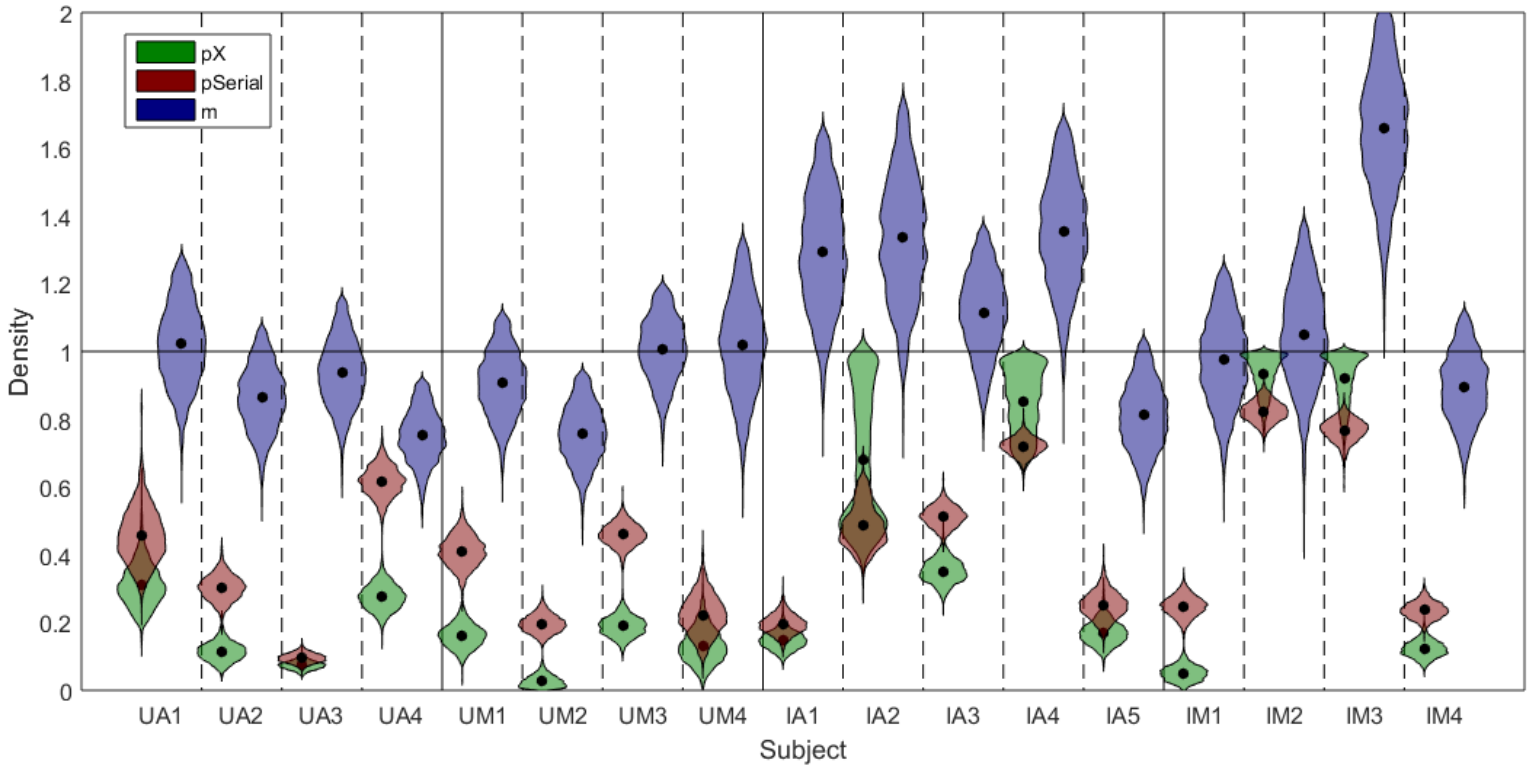


Figure S4. Posterior densities for the pX and pSerial parameter and perceptual variance multiplier for the mixed serial-parallel model.

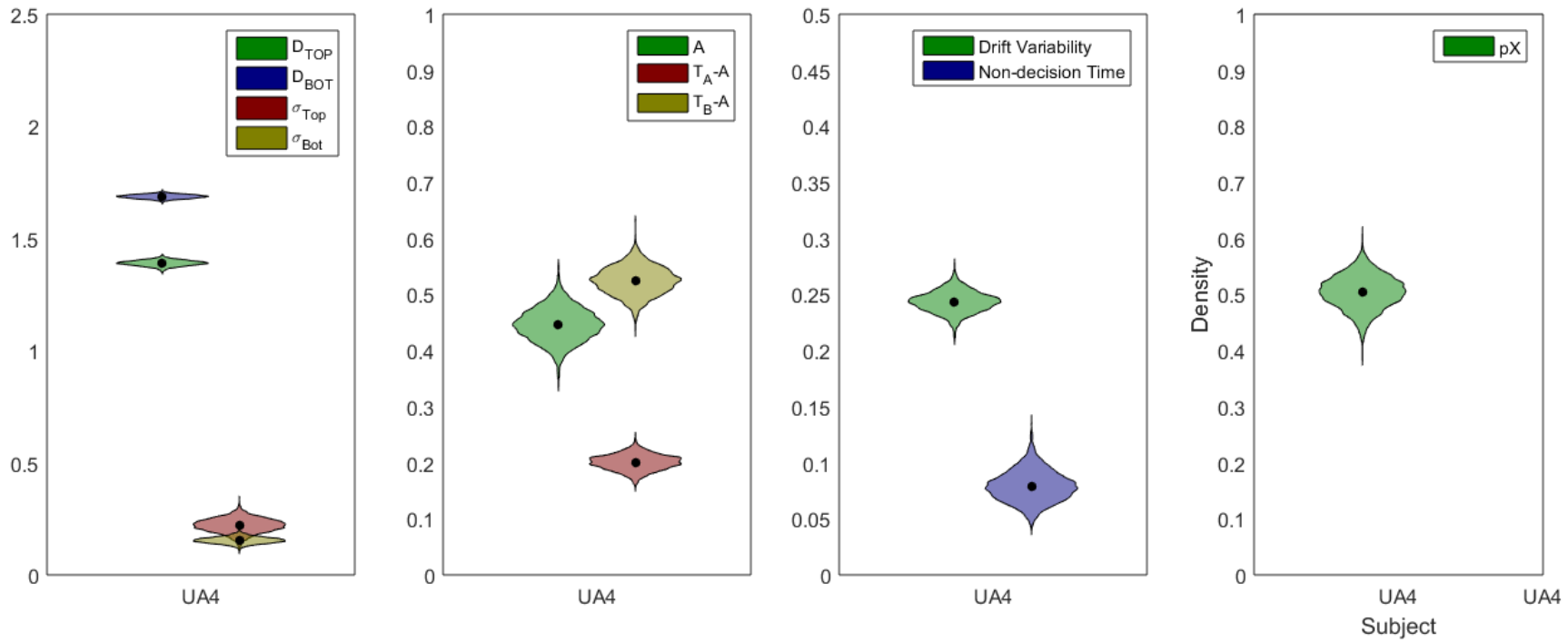


Figure S5. Posterior densities for all parameters for the serial self-terminating model for subject UA4.

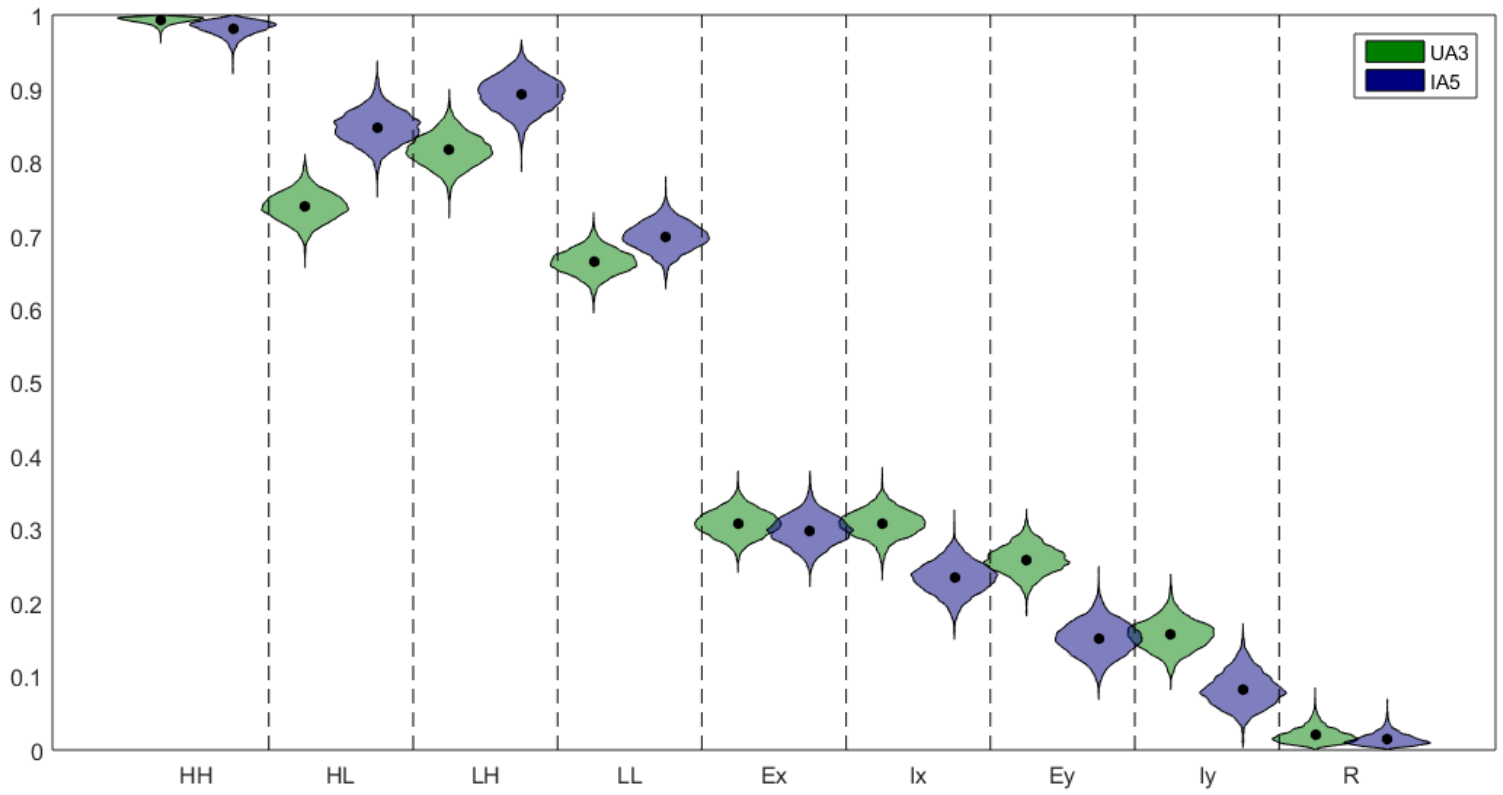


Figure S6. Posterior densities for the drift rates for the free stimulus drift rate model for two subjects (UA3, IA5) best fit by that model.

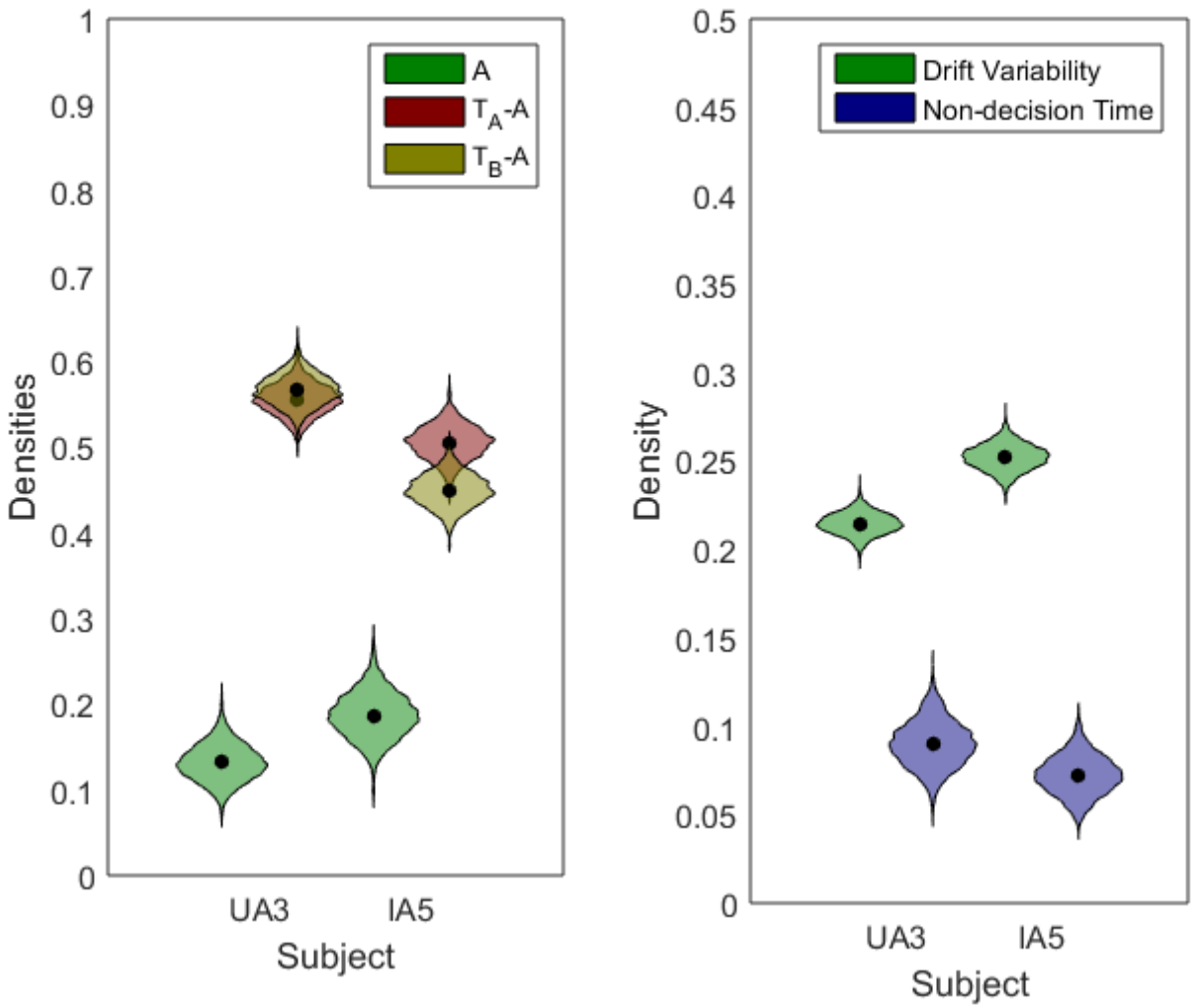


Figure S7. Posterior densities for the start point and boundaries and the drift variability and non-decision parameters for the free stimulus drift rate model for two subjects best fit by that model.

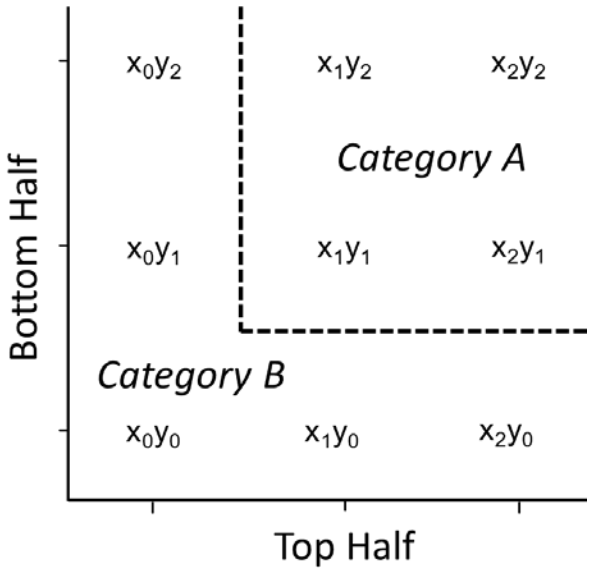
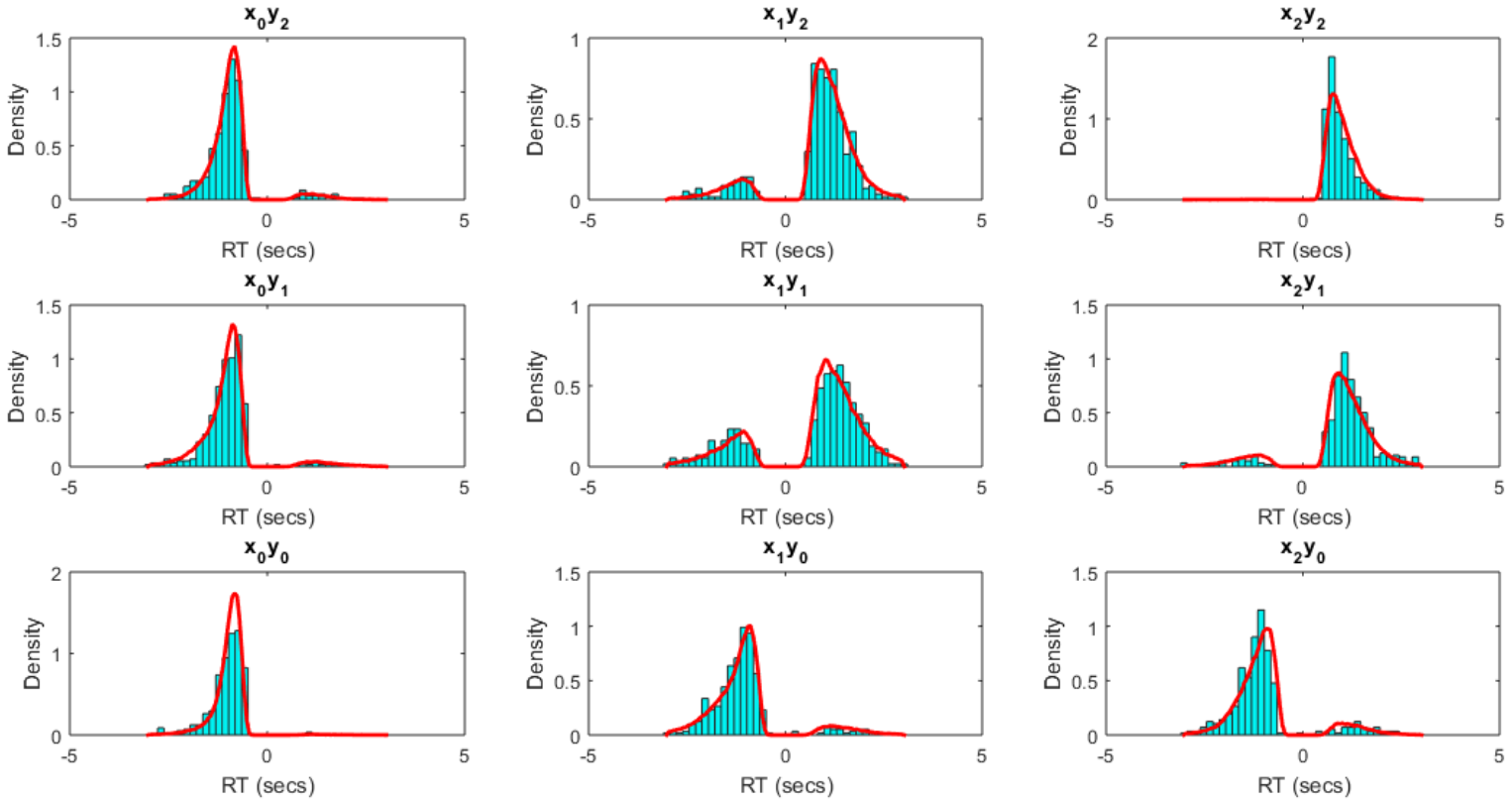
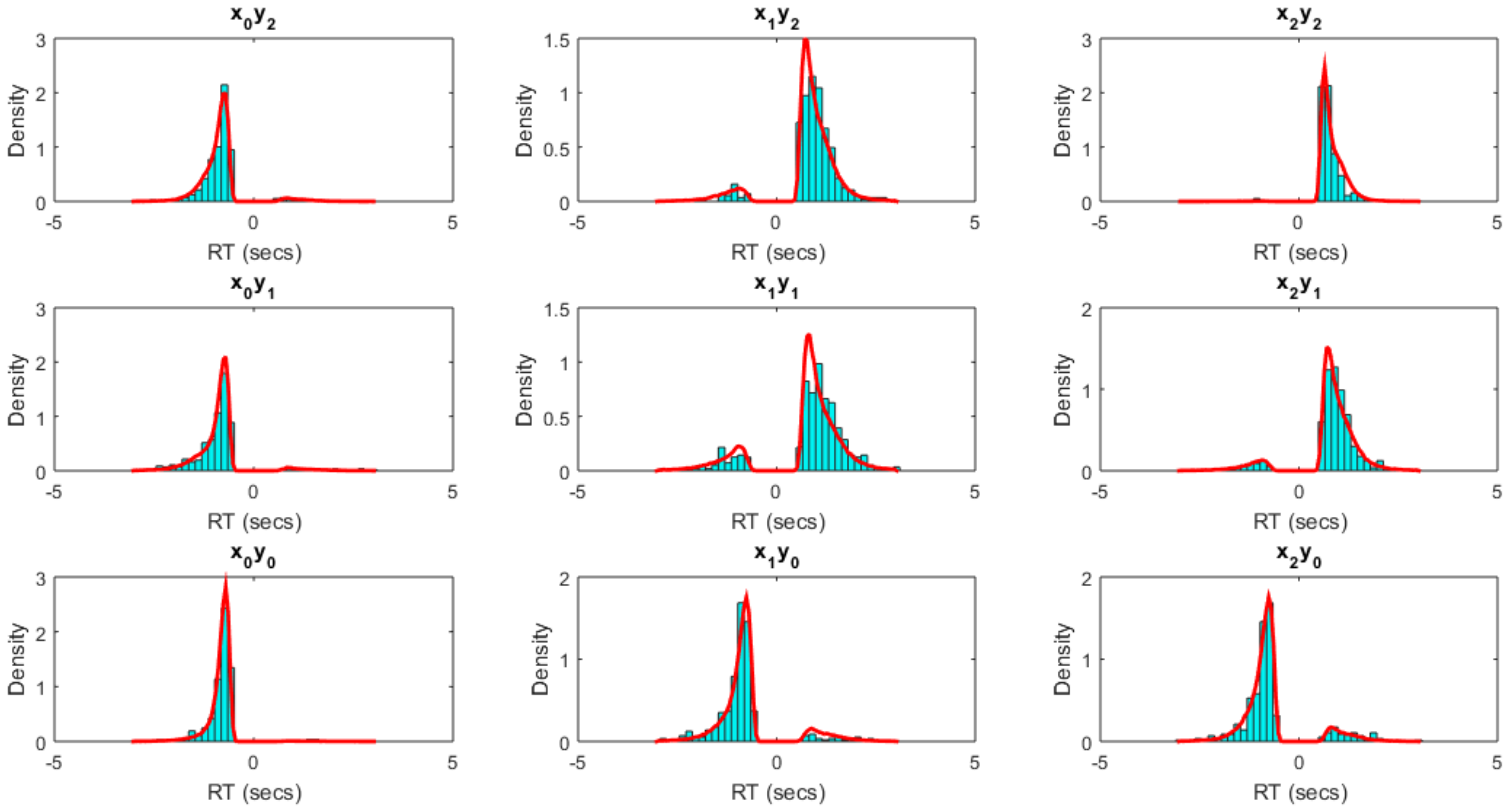


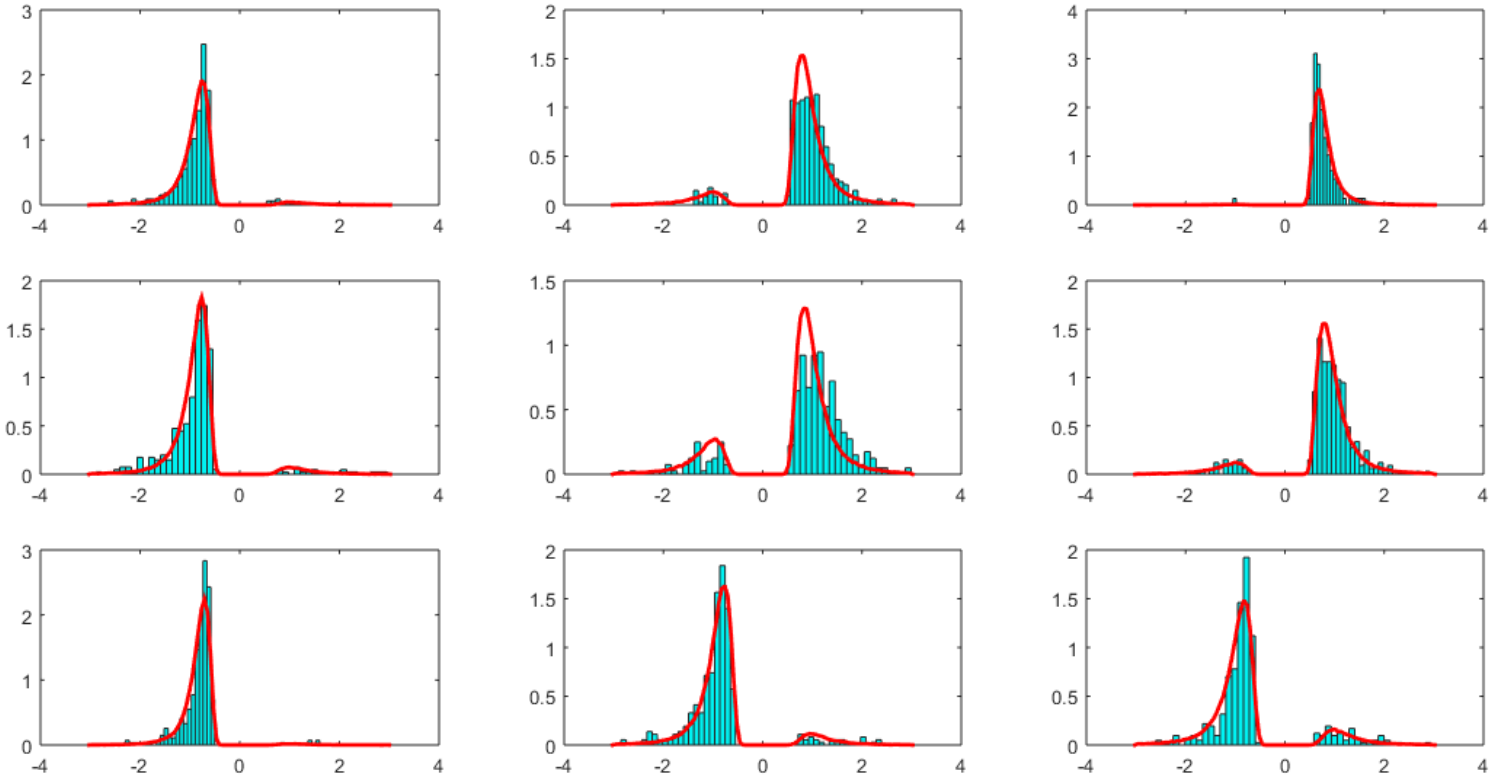
Figure S8. Category space used in Cheng, McCarthy, Wang, Palmeri & Little (2016).



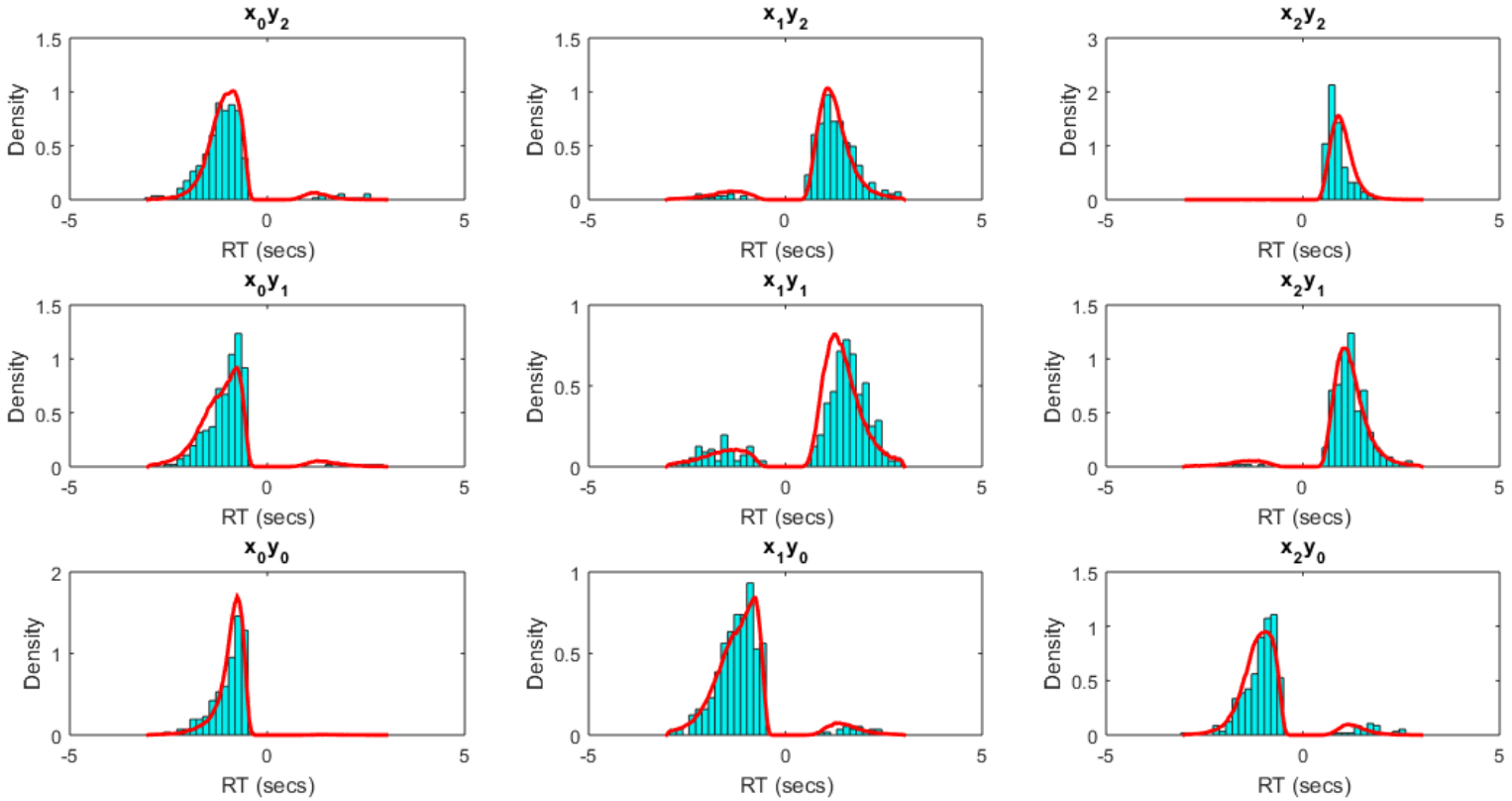
Subject U1 – Mixed Serial-Parallel Self-terminating Model



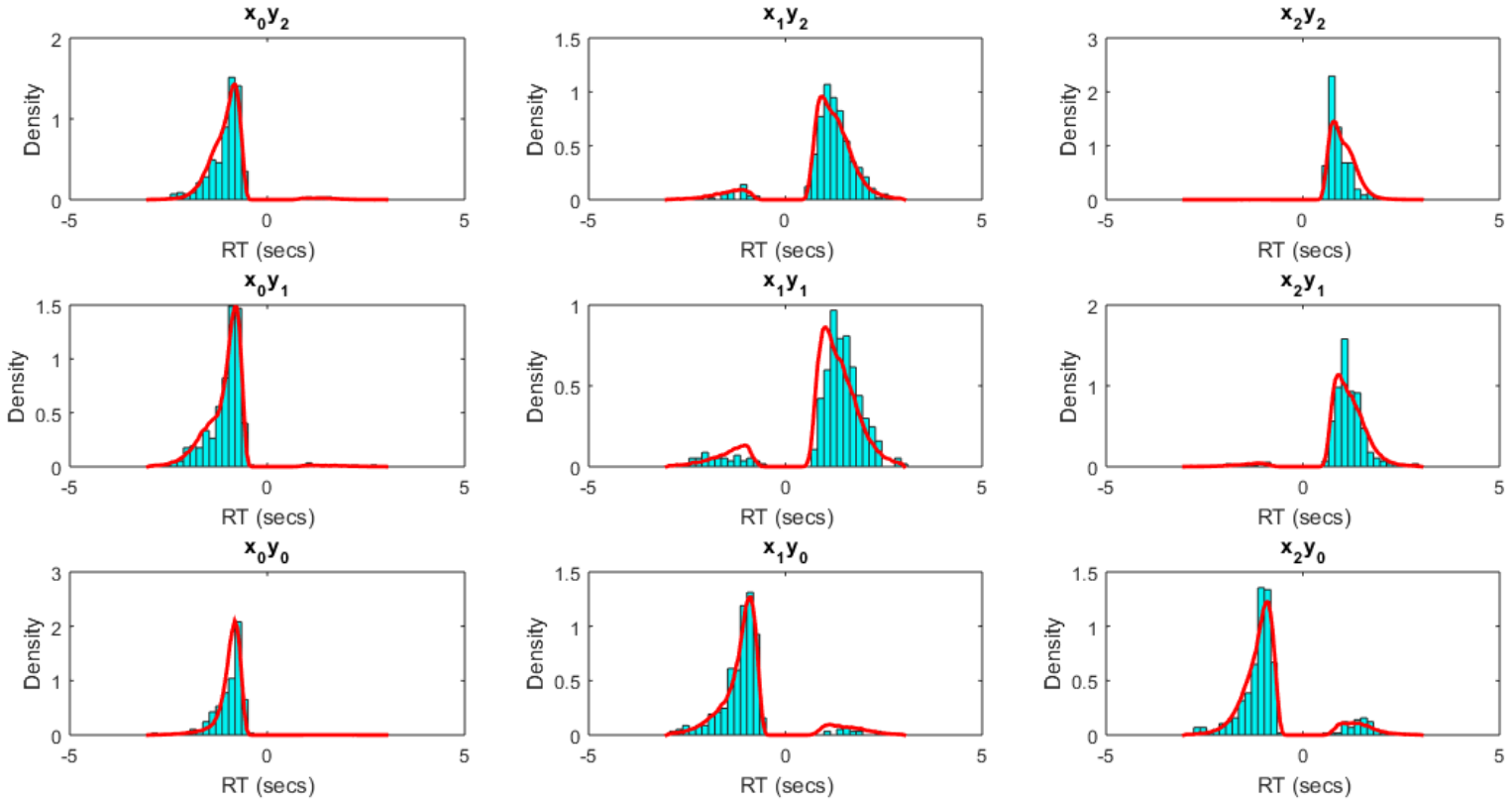
Subject U2 – Mixed Serial-Parallel Self-terminating Model



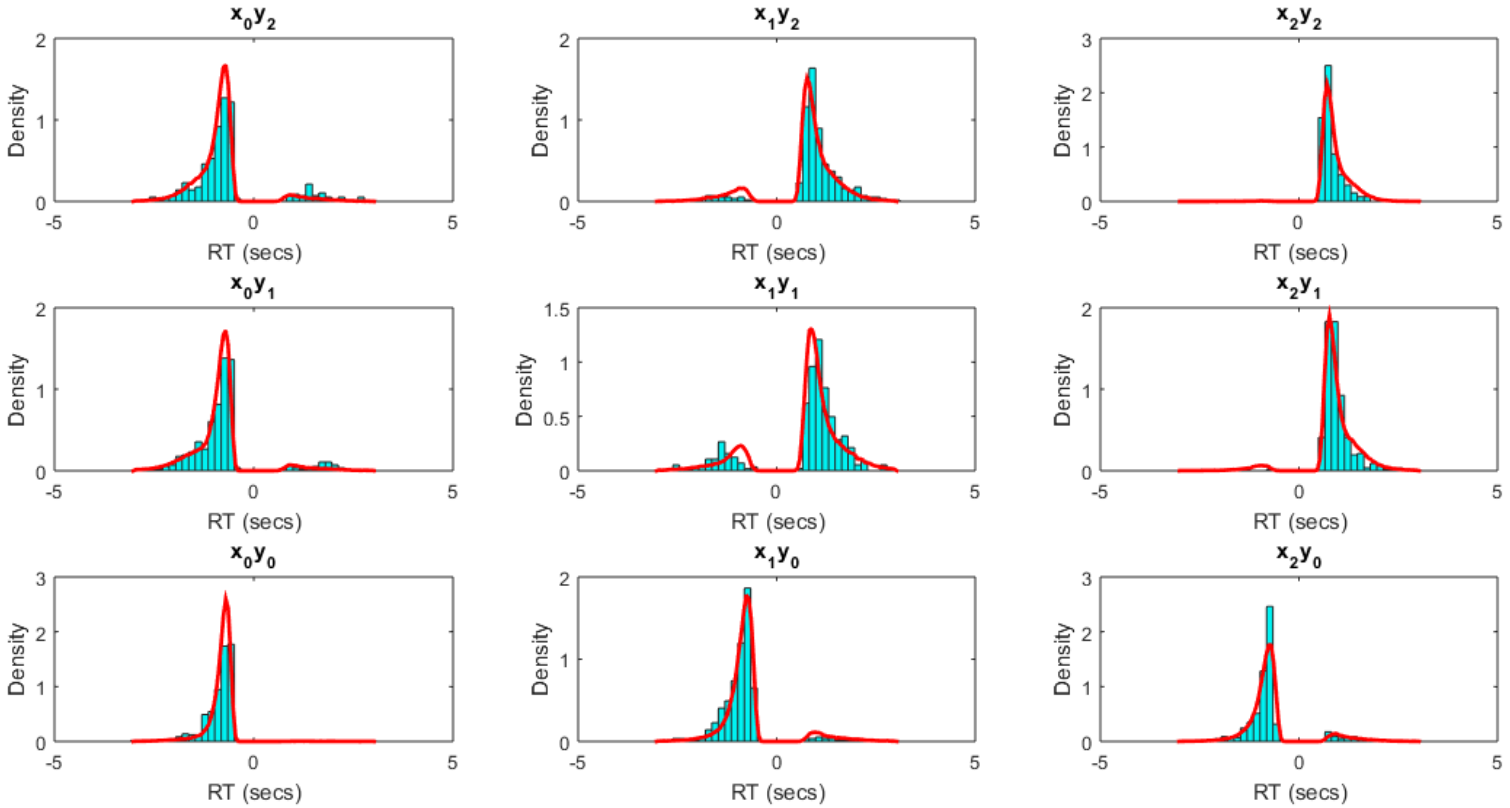
Subject U3 – Free Stimulus Drift Model



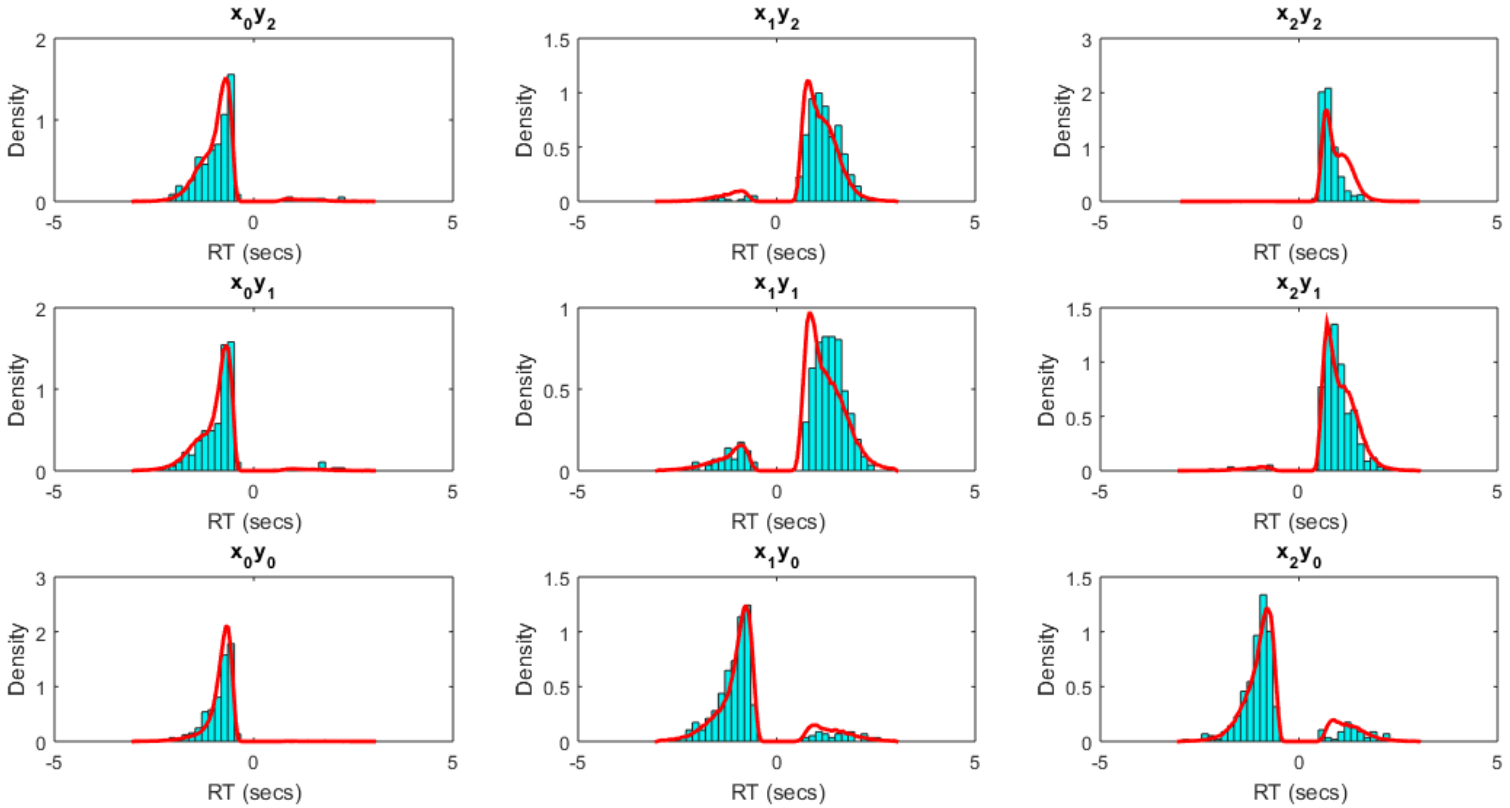
Subject U4 – Serial Self-Terminating Model



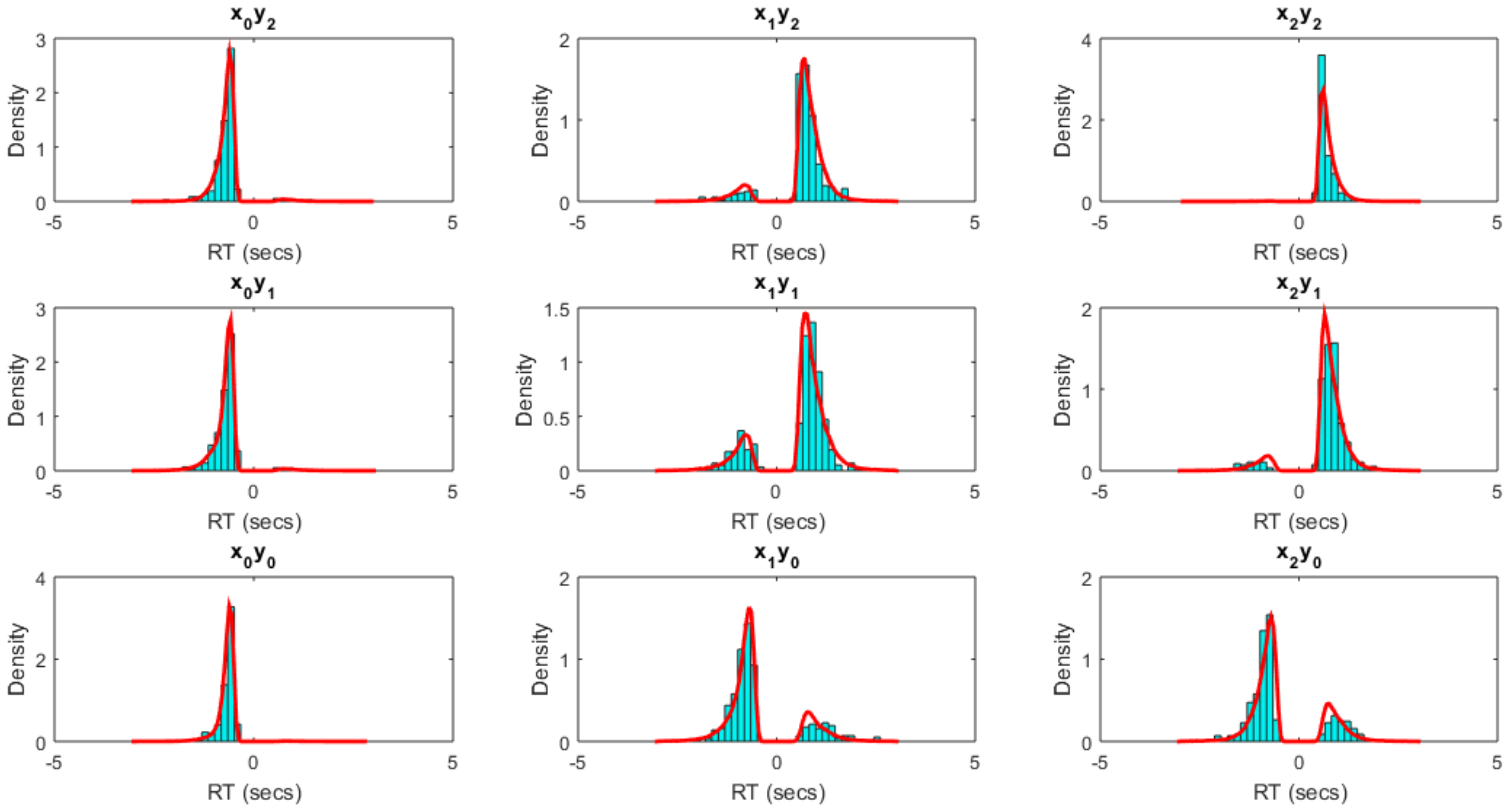
Subject UM1 – Mixed Serial-Parallel Self-terminating Model



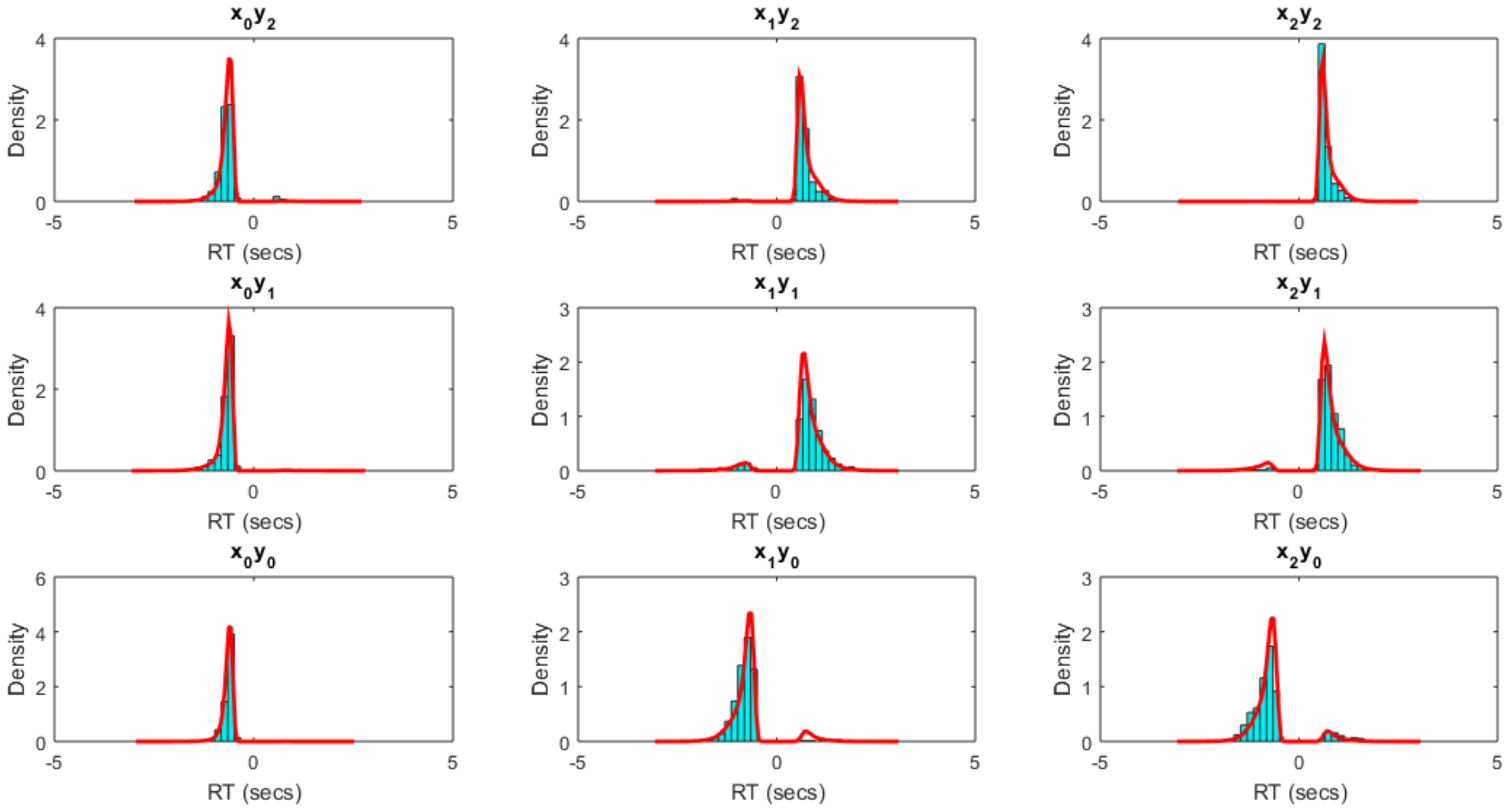
Subject UM2 – Mixed Serial-Parallel Self-terminating Model



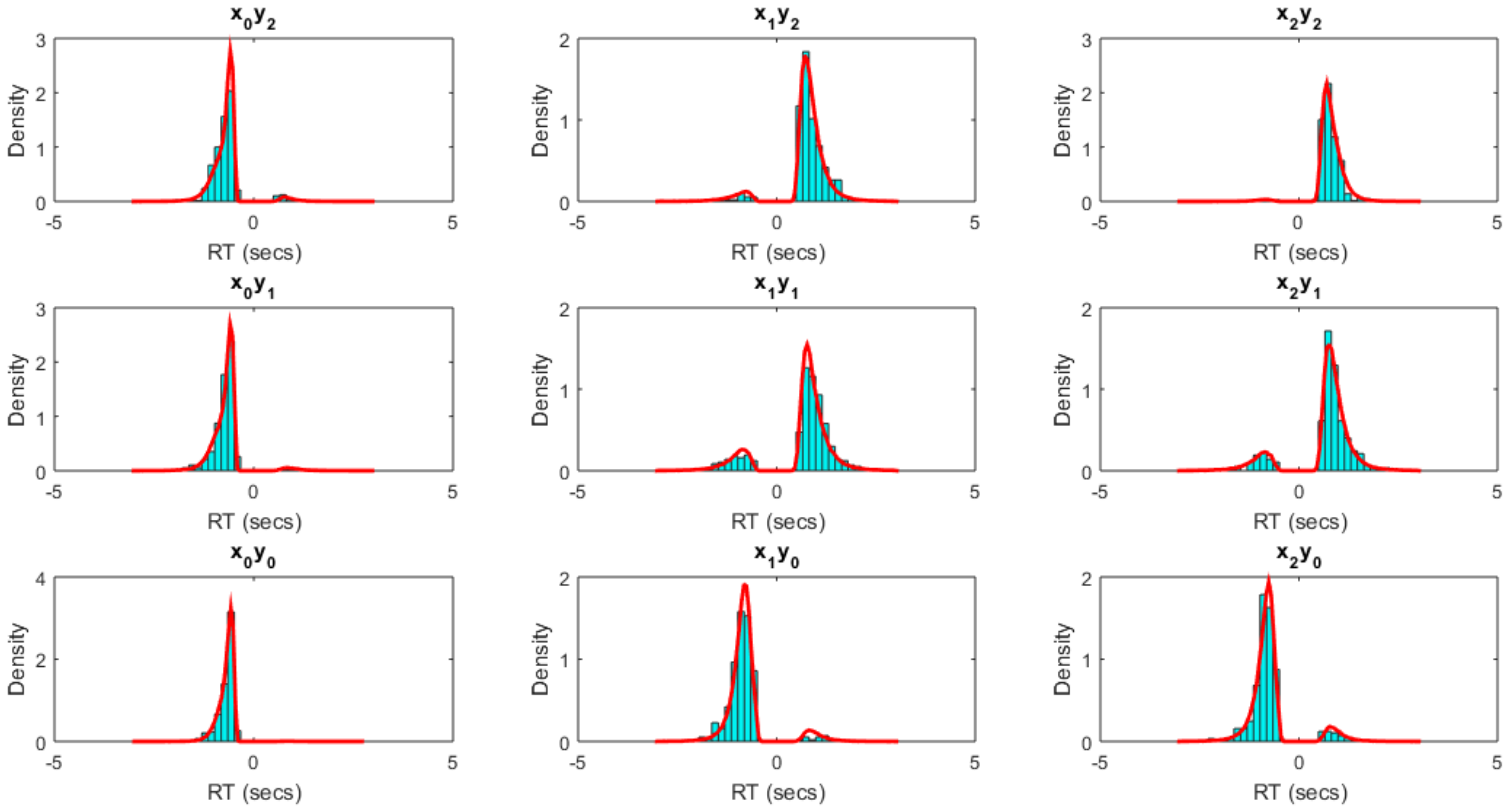
Subject UM3 – Mixed Serial-Parallel Self-terminating Model



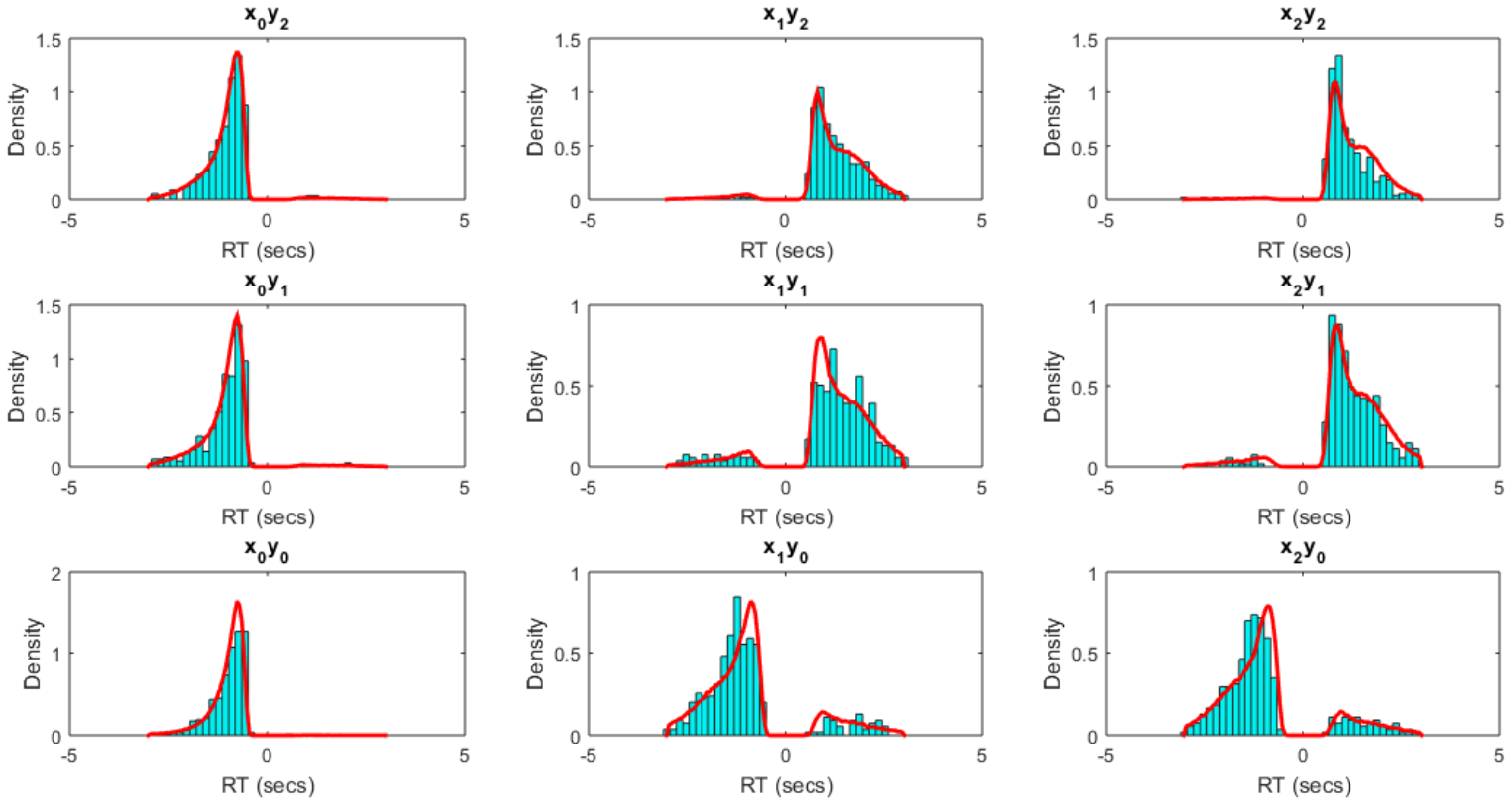
Subject UM4 – Mixed Serial-Parallel Self-terminating Model



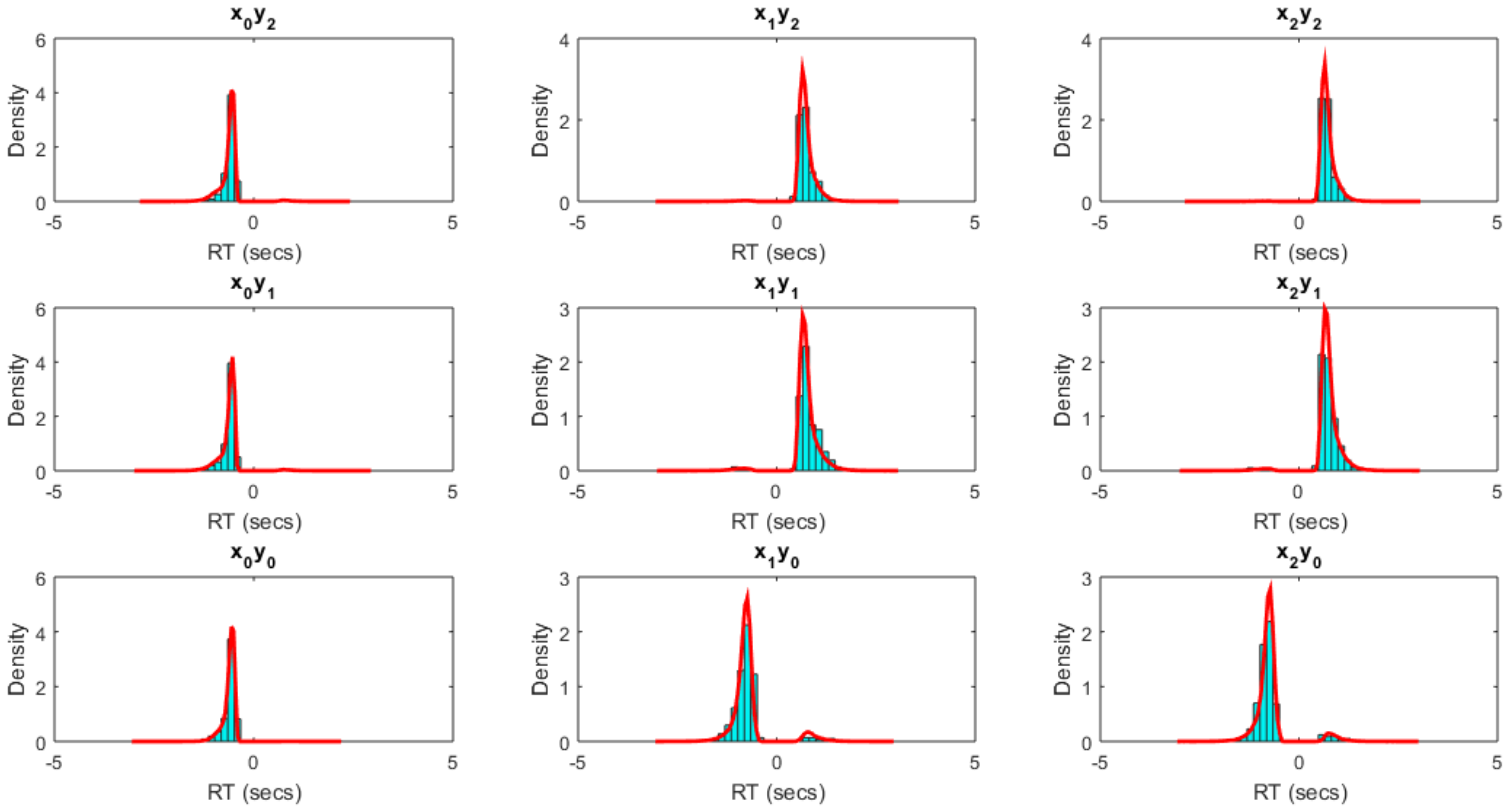
Subject IA1 – Mixed Serial-Parallel Self-terminating Model



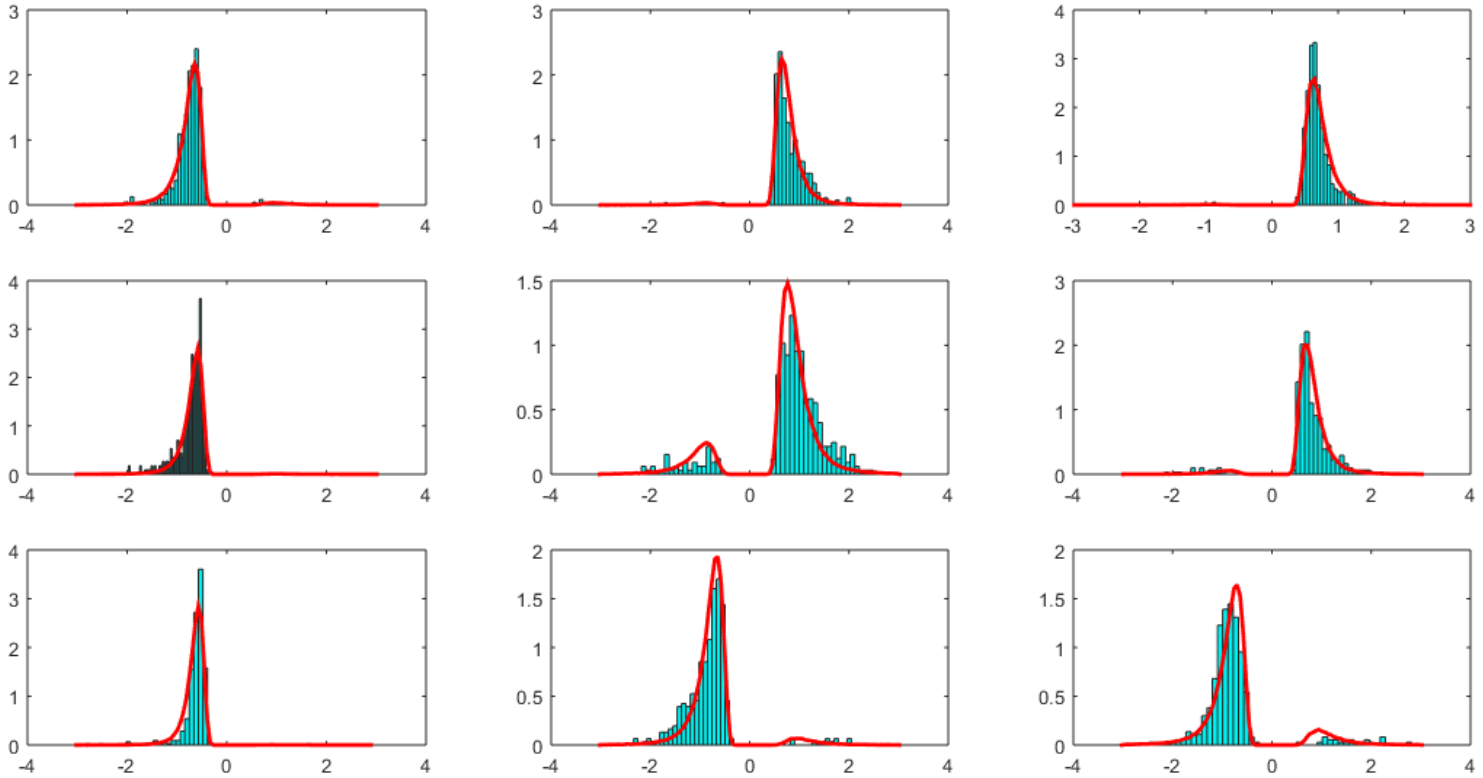
Subject IA2 – Mixed Serial-Parallel Self-terminating Model



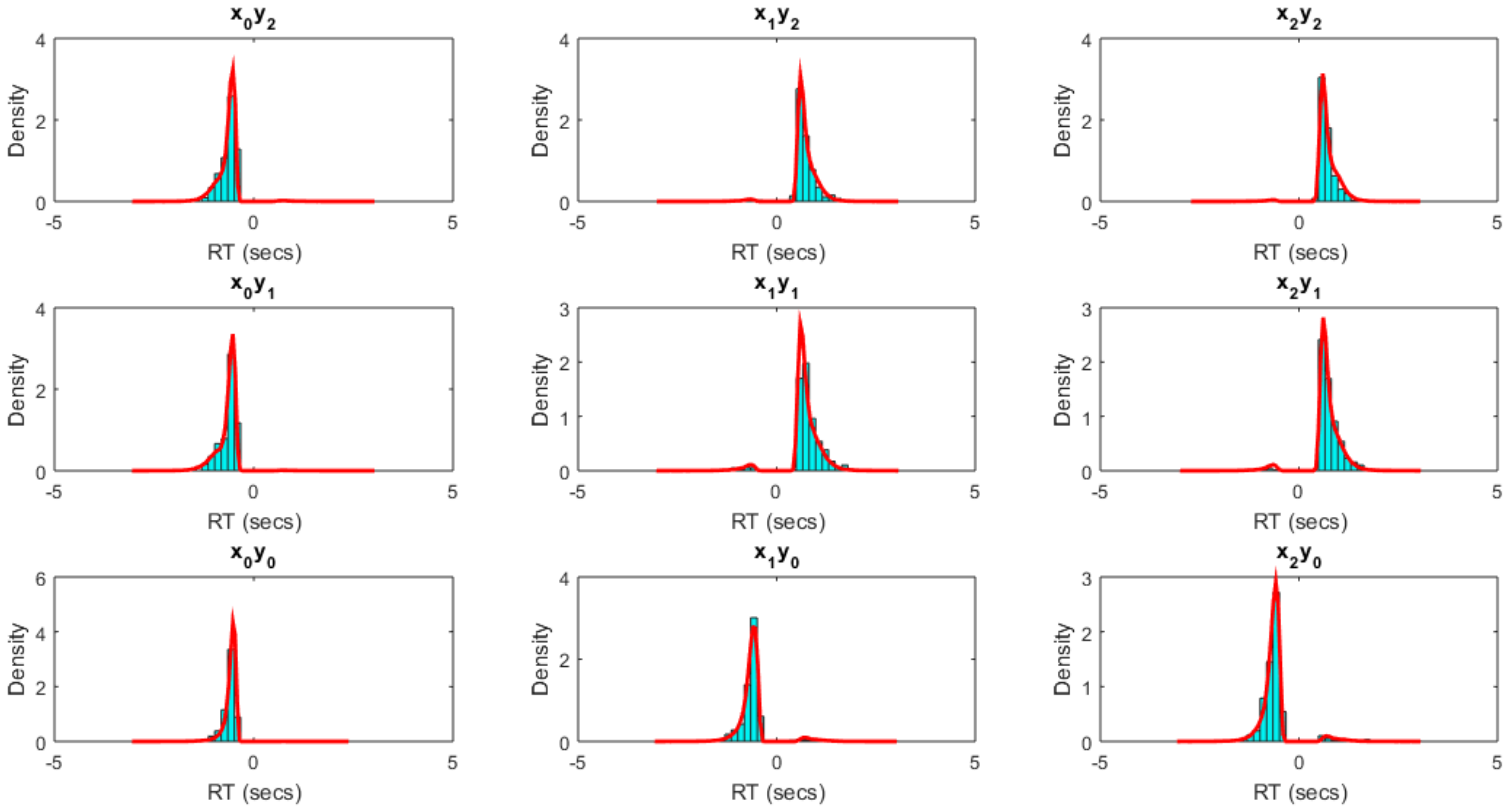
Subject IA3 – Mixed Serial-Parallel Self-terminating Model



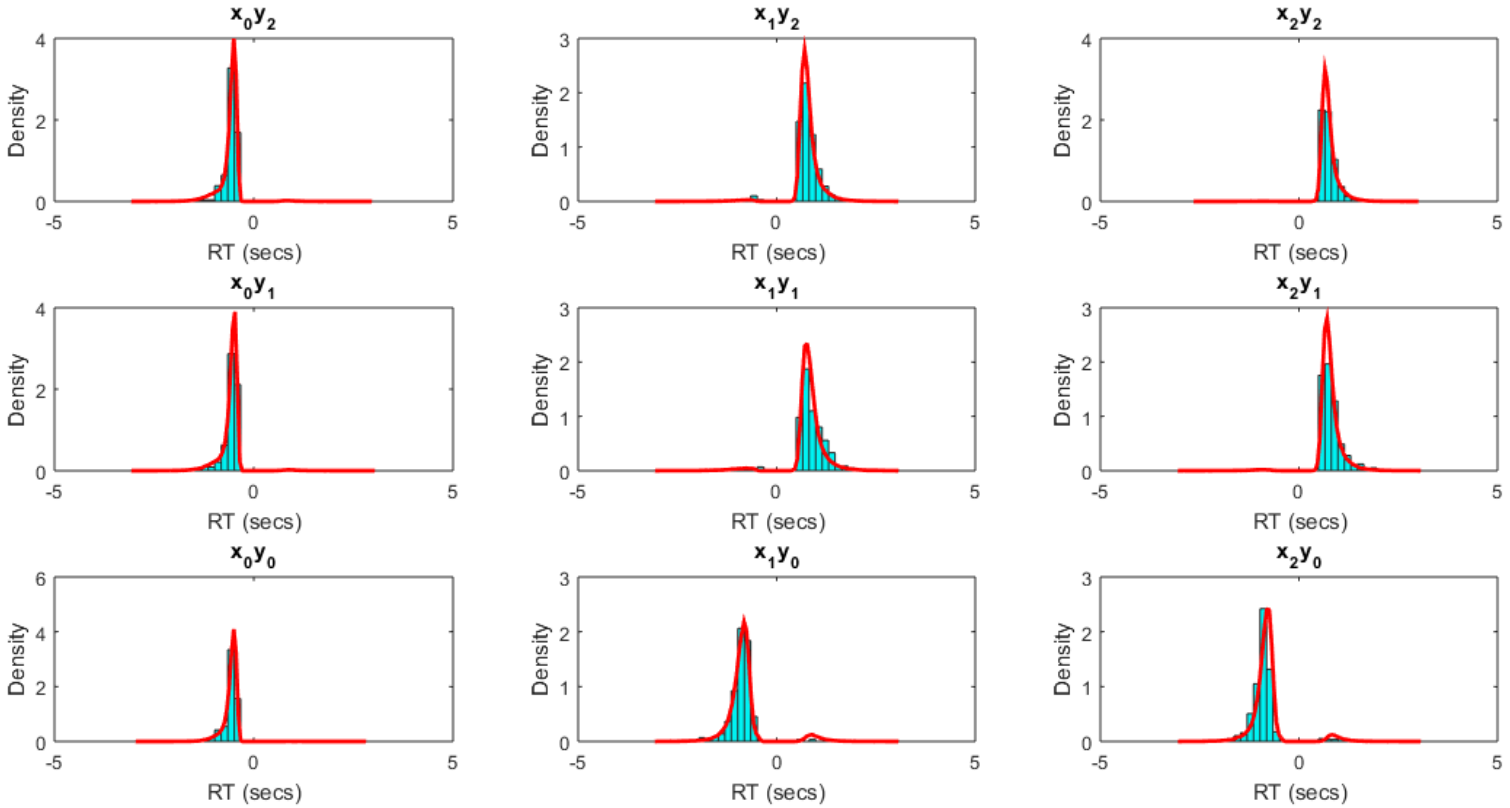
Subject IA4 – Mixed Serial-Parallel Self-terminating Model



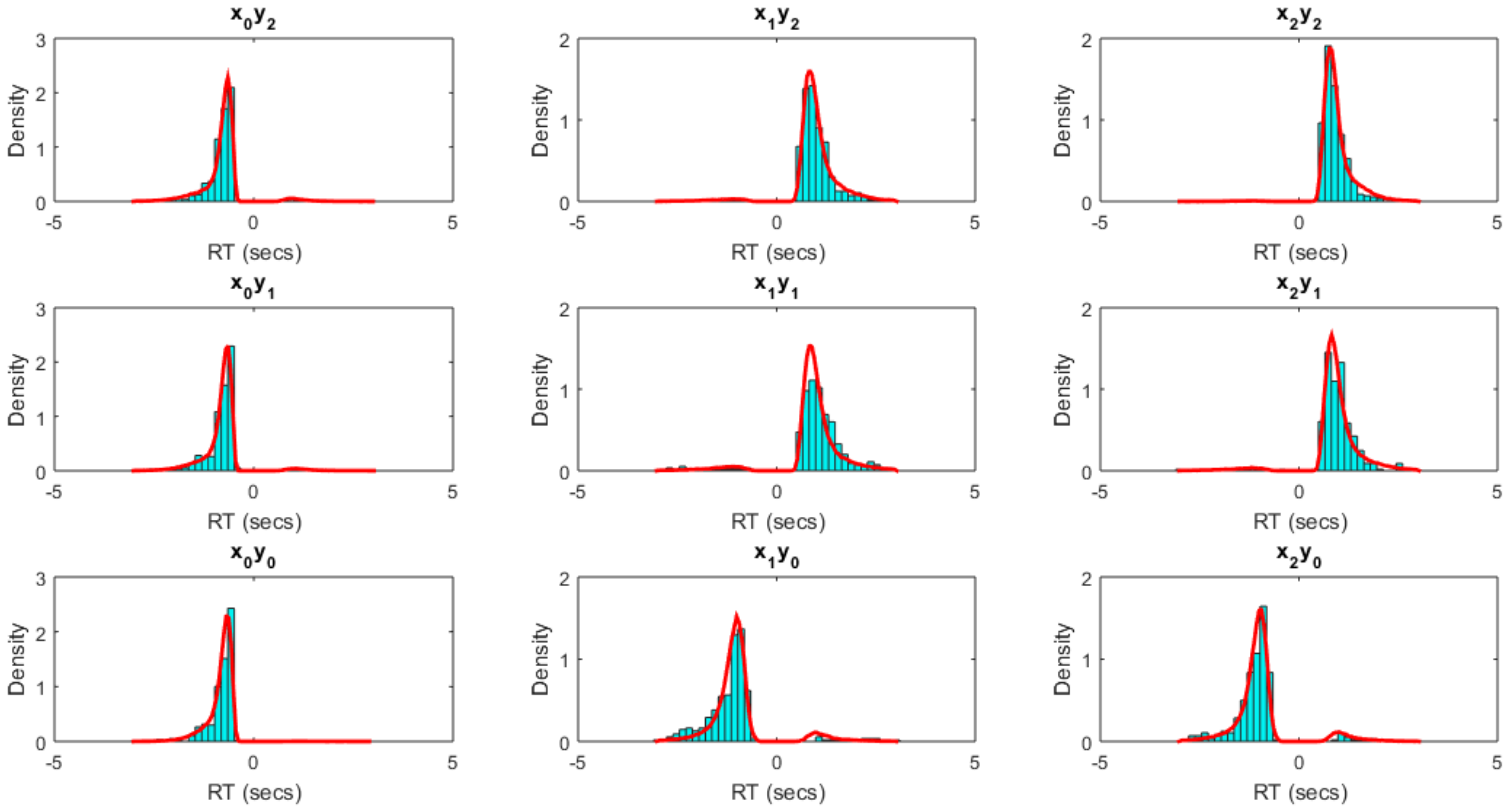
Subject IA5 – Free Stimulus Drift Model



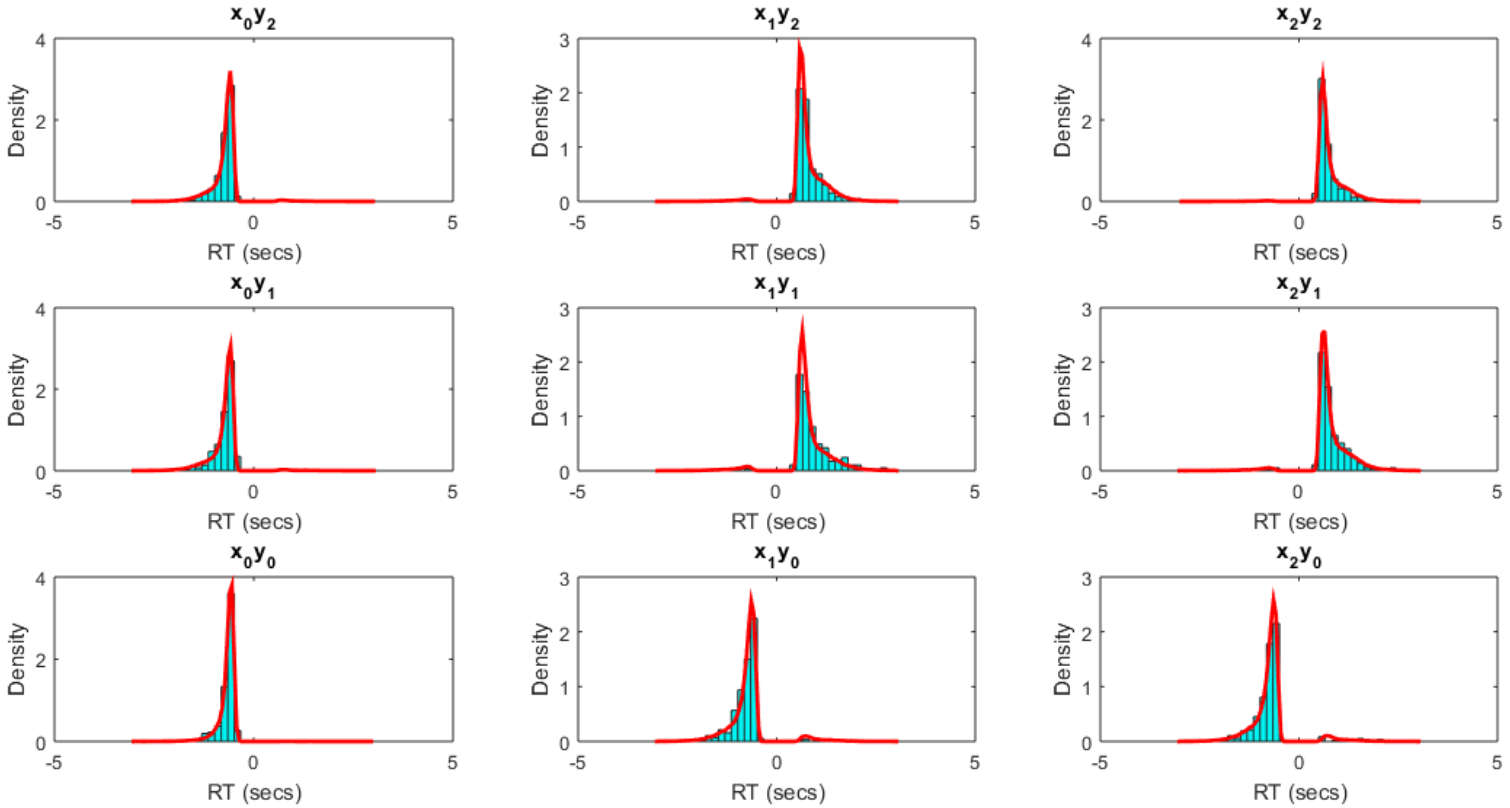
Subject IM1 – Mixed Serial-Parallel Self-terminating Model



Subject IM2 – Mixed Serial-Parallel Self-terminating Model



Subject IM3 –Serial Self-terminating Model



Subject IM4 – Mixed Serial-Parallel Self-terminating Model